

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

COMCAST CABLE COMMUNICATIONS
CORPORATION, LLC, a Delaware company,

No. C 06-04206 WHA

Plaintiff,

v.

FINISAR CORPORATION, a Delaware
corporation,

**CLAIM CONSTRUCTION
ORDER**

Defendant.

INTRODUCTION

This is a claim construction order for United States Patent No. 5,404,505. This order addresses six phrases selected by the parties. A technology tutorial, a claim construction hearing, and a full round of briefing preceded this order.

STATEMENT

Plaintiff Comcast Cable Communications Corporation LLC, provides cable, information and entertainment services. It has operated and managed cable networks since 1963. Defendant Finisar Corporation provides fiber-optic subsystems and network-performance test systems. Finisar is the assignee of the '505 patent.

The '505 patent was drawn to a system for giving a large number of subscribers access to a comprehensive, virtually omniscient, digitized information database using a relatively small amount of bandwidth. One of the invention's aims was to reduce two-way communications

1 between the provider and subscribers over prior art systems. The patentee likened his invention
2 to the main library of a large university such as Harvard or Yale (col. 2:9–23). The system,
3 like such a library, provides the subscriber access to a huge amount of information.
4 The subscriber, however, can only receive a small portion of the library at one time. To provide
5 the broader access intended by the invention, subscriber stations download “root information”
6 that subscribers use to access successively lower levels of indices used to subdivide and to
7 reference the database. Information within the database is then transmitted to all subscribers.
8 A filter system programmed to the requirements of each subscriber plucks out the data packets
9 that the subscriber wants from the incoming data. The data packets are then downloaded into a
10 storage system for later retrieval by the subscriber. Some information is sent more frequently,
11 *i.e.*, repeated more than other information. Information that is in greater demand, for example,
12 is sent at higher repetition rates.

13 This action commenced when Finisar sent a series of three letters to Comcast alerting it
14 to the existence of the ’505 patent. Finisar stated that it was interested in negotiating a license
15 with Comcast. The first letter was fairly innocuous. The final letter included an ominous
16 statement regarding a multimillion-dollar verdict Finisar had recently won in another action
17 asserting the ’505 patent against another company (*id.* at Exhs. B, D).

18 Comcast filed this action seeking declaratory judgment of non-infringement and
19 invalidity of the ’505 patent on July 7, 2006. Finisar’s motion to dismiss the action for lack of a
20 justiciable controversy was denied on November 9, 2006. Finisar’s preliminary infringement
21 contentions were due shortly thereafter. Finisar accused Comcast of infringing a single claim
22 — claim 16 of the ’505 patent. Later, Finisar moved to amend its preliminary infringement
23 contentions to add claims 17, 20–22, and 24–26. The motion was granted on March 2, 2007.
24 Given the impending claim construction tutorial, however, Comcast was given the option of
25 proceeding with the claim construction schedule in place, or selecting its own six phrases from
26 the larger number of claims now in issue and adopting a later claim construction schedule.
27 Comcast chose the former.
28

ANALYSIS

1. LEGAL STANDARD.

Claim construction is a matter of law to be decided by a judge, not a jury. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388 (1996). Courts must give words in the claims their ordinary and customary meaning, which “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Where this ordinary and customary meaning is not immediately clear, courts must primarily look to intrinsic evidence (*i.e.*, the claims, the specification, and the prosecution history) to determine the meaning. *Id.* at 1314. With respect to the specification, although a difficult task, a court must distinguish “between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim.” *Id.* at 1323. The latter is not permissible.

Although courts have the discretion to consider extrinsic evidence, including expert and inventor testimony, dictionaries and scientific treatises, such evidence is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Id.* at 1317 (citation omitted). “The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Id.* at 1315. “Nonetheless, any articulated definition of a claim term ultimately must relate to the infringement questions it was intended to answer.” *E-Pass Tech., Inc. v. 3Com Corp.*, 473 F.3d 1213, 1219 (Fed. Cir. Jan. 12, 2007) (citing *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326 (Fed. Cir. 2006)).

Finisar presents prior constructions of terms in the ’505 patent from an action brought in the United States District Court for the Eastern District of Texas (Melgar Decl. Exhs. B–D; *Finisar Corp. v. The DirecTV Group, Inc.*, Civ. Action No. 1:05-CV-0264 (Clark, J.)). Finisar urges this Court to adopt those prior rulings to the extent that they address the same claim terms. Even if these decisions were from this district, they would still not be binding. Those decisions also involved a different defendant, and so issue preclusion does not apply

here. That said, there is an interest in *stare decisis* and uniformity in the treatment of the same patent. *See Markman*, 517 U.S. at 390–91 (1996). Prior constructions may be persuasive, but this Court may reach different conclusions. *Verizon Cal. Inc. v. Ronald A. Katz Licensing, L.P.*, 326 F. Supp. 2d 1060, 1069 (C.D. Cal. 2003); *Nilssen v. Motorola, Inc.*, 80 F. Supp. 2d 921, 924 n.4 (N.D. Ill. 2000). Comcast points out that the prior claim constructions are the subject of an appeal pending before the Federal Circuit. The Federal Circuit reviews claim construction *de novo*. In this order, the Texas Court’s claim constructions will be considered only for their persuasive value.

In arguing claim constructions, Finisar adopts all of the Texas Court’s constructions except one. Finisar proposes a slightly different definition for “requested.” The Texas Court held that “requested data packets” meant data packets requested by subscribers or subscriber stations. Here, Finisar proposes that “requested” means that any person or thing may make the request.

2. DISPUTED CLAIM PHRASES AND TERMS.

The parties have selected six phrases for construction, reserving as to all others for now. Those six phrases are: (1) “information database;” (2) “hierarchically arranged set of indices for referencing data in said information database;” (3) “a prioritized set of tiers;” (4) “wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate;” (5) “downloading into a memory storage device;” and (6) “requested.”

Each of the disputed terms and phrases appeared in claim 16, which recited as follows (col. 21:34–68):

16. An information transmission system comprising the steps of:
 storing an *information database* on one or more memory devices;
 generating and storing on said memory devices a *hierarchically arranged set of indices for referencing data in said information database*, including distinct indices for referencing distinct portions thereof, and embedding said indices in said information database;

scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;

transmitting a stream of data packets containing said selected portions of said information database in accordance with said scheduled transmission times;

said scheduling step including dividing said selected portions of said information database into *a prioritized set of tiers, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate*, wherein the repetition rate for higher priority tiers is higher than the repetition rate for lower priority tiers;

receiving said transmitted stream of data packets at subscriber stations;

at each subscriber stations, storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets; and

at each subscriber station, *downloading into a memory storage device* those of said received data packets which match said specified set of *requested* data packets.

In making their arguments, the parties cited to a few snippets of the '505 patent's file history, but they did not lodge the entire history with the Court. Thus, the following constructions are made without benefit of the entire file history. On any appeal, it would be most unfair for any party to rely on other file history passages.

A. "Information Database."

The phrase "information database" was recited in each of the independent claims.

By way of example, claim 16 recited in part (col. 21:34–50):

16. An information transmission system comprising the steps of:
storing an *information database* on one or more memory devices;
generating and storing on said memory devices a hierarchically arranged set of indices for referencing data in said *information database*, including distinct indices for referencing distinct portions thereof, and embedding said indices in said *information database*;

scheduling transmission of selected portions of said *information database*, including assigning each selected portion of said *information database* one or more scheduled transmission times;

transmitting a stream of data packets containing said selected portions of said *information database* in accordance with said scheduled transmission times;

* * *

Comcast contends that this term should mean “a non-transient and integrated collection of data, organized so that the collection can be searched.” By “non-transient,” Comcast means that the information must persist for some amount of time in the database. Finisar argues that it should be construed as “a collection of computerized information which can be accessed.”

Finisar’s proposed construction was adopted by the Texas claim construction decisions.¹

Both parties agree that this term indicates some grouping of data. Lay jury members would understand the term “information,” and also that a “database” is stored in some fashion. This much is clear. The parties, however, part company on three issues: (1) whether the information database stores only digital or “computerized” information; (2) whether information on the database may be transient or if it must persist for some time; and (3) whether the information database must be integrated and searchable.

(1) *Digital Information.*

A “database” is defined as “a structured collection of data held in computer storage.” *Oxford English Dictionary* (2d. ed. 2001). All the claims indicated that the information is stored electronically, for instance, in a computer memory device. All sides agree that the format must be digital rather than analog.

The substance of the dispute seems to be over whether the information must be “digital,” as Comcast proposes, or “computerized,” as Finisar proposes. The plain meaning of the whole disputed term “information database” clearly indicates that the information is stored by a computer. Thus, using the word “computerized” adds little to the term’s definition. The term “digital” or “digitized” is sufficient to make clear that the information is not stored on the

¹ The Texas Court construed the term “information database” to mean “a collection of computerized information which can be accessed” (Melgar Decl. Exh. B at 6).

1 database in analog form. This order will define “information database” to mean “a structured
2 collection of digitized data capable of being held in computer storage.”

3 (2) *Dynamic Database.*

4 Comcast would require that the information within the database be “non-transient” while
5 Finisar would include “transient” information. Comcast’s argument seems to be that while the
6 information within the database can be updated frequently, the information must exist in a fixed
7 location. Finisar concurs in the idea that the database can be updated frequently, but would not
8 require that the information exist in a fixed location. This order holds that the database can be
9 dynamic, that is, the information within the database can be updated frequently even though the
10 changed information is placed in the same storage location within the database as the replaced
11 information.

12 In the specification, the patentee analogized his invention to the stacks of books of
13 Widener Library at Harvard (col. 2:9–23). Both the books in a library and a database can be
14 updated. Even a traditional set of encyclopedias in book form is updated from time to time.
15 A librarian replaces the older set with a newer version. In the same way, a subscriber to the
16 inventive system may want to have the latest score of the Final Four basketball games.
17 This information would be updated very frequently. At one time, the score may be tied.
18 Less than a second later one team may have pulled ahead by a three-point shot. The
19 information in the database can be dynamically updated as events happen, and the new
20 information can be sent to the subscriber. The data can be found, at any given instance, at the
21 same location in the database, stored temporarily, for example, under a subheading called “Final
22 Four.”

23 This concept of a dynamic database finds support from the specification. It taught that
24 the “basic service provides unlimited access to a base set of information, which in the preferred
25 embodiment is about fifty gigabytes of public service information such as newspapers, weather
26 reports and the like that are updated frequently” (col. 4:5–10). Thus, the information in the
27 database can be dynamic.
28

1 Again, even if frequently updated, the information can still exist in the same location.
2 Returning to the patentee's analogy, even though a book at Widener may be updated, it is still
3 placed in the same aisle within the same stack. It is also accessible through the same catalog.
4 In the patented system at issue here, the updated information is accessible in the same indices
5 used to find information. This is so because even though the information may have changed,
6 the place that the system finds it has not.

7 Finisar also argues that data within the database need not have a fixed *location*. This is
8 correct, at least as follows. The index itself can be (but need not be) dynamic. For example, as
9 each issue of a magazine is released, a new sublocation in the overall index can be added to
10 isolate and refer to a single magazine issue. In this way, the current issue as well as past issues
11 of the magazine can be found. The new, updated index can be transmitted as root information
12 to subscribers. Depending on the subscriber's needs, the local filter system may or may not
13 have to be adjusted in the subsection to pluck the new subindex from the transmission.
14 Thus, the database may be dynamic not only as to the contents but also as to the indices.

15 (3) *Integration and Searchability.*

16 The parties also disagree as to whether the information database must be integrated and
17 searchable. Both parties do agree, however, that the information database need not exist on a
18 single device or in a single place. The claims provide support. Claim 1 recited "[a]n
19 information transmission system comprising a set of *one or more computer memory devices* on
20 which is stored an information database" (col. 17:68–18:2). The same limitation appeared in
21 the first paragraph of all independent claims.

22 Comcast and Finisar part company on the degree to which data on the one or more
23 computer memory devices must be integrated. Comcast contends that it must all reside within
24 the same hierarchical structure. The specification taught that "[t]he system has a program
25 supplier which stores an information database and tags all the information in the database with
26 indices so as to form *a single hierarchical structure which encompasses the entire database*"
27 (col. 2:52–56). Furthermore, the patentee analogized his invention to a large university library
28 (col. 2:14–23). A single, expansive library collection may be so large that it is stored in several

1 buildings, but it is still organized and accessible using a centralized system. Thus, the database
2 must be integrated, that is, it must be accessible using a single structure.

3 Comcast contends that the information database must be “searchable,” while Finisar
4 contends that the information database must only be “accessible.” Finisar’s contention follows
5 logically from the invention’s purpose of sending information to subscribers. The idea that the
6 information database is “searchable,” however, is a larger leap. The claims specifically recited
7 a system of indices embedded within the information database. The indices tag parts of the
8 database so that those parts can be referenced. In claim 28, the indices are used to
9 cross-reference the information, while in claim 16, asserted in this action, the indices are used to
10 reference the information. Neither claim indicates that the information should be “searchable”
11 beyond the navigability implied by the index itself.

12 Comcast further argues that the invention contemplates a system in which subscribers
13 may request information. This is true. The requests, however, are not “word searches” à la
14 Westlaw or LexisNexis. Rather, the requests are based on the system of indices. Thus, there is
15 no basis to impose the additional limitation of “searchability” to this disputed term.

16 Accordingly, the term “information database” is construed as “a dynamic, structured
17 collection of digitized data capable of being held in computer storage.”

18 **B. “Hierarchically Arranged Set of Indices**
19 **For Referencing Data in Said Information Database.”**

20 This term appeared in independent claims 1 and 16. Again, claim 16 recited in part
21 (col. 21:34–43):

22 16. An information transmission method comprising the steps of:
23 storing an information database on one or more memory devices;
24 generating and storing on said memory devices a *hierarchically*
25 *arranged set of indices for referencing data in said*
26 *information database*, including distinct indices for
referencing distinct portions thereof, and embedding said
indices in said information database;

27 * * *

28 As to this term, Comcast proposes that an index means “a list of contents, which can be used to
locate the items that are indexed,” such that the entire term means “that the data in the

1 information database is made available using indices that are ranked into successive levels, such
 2 that a higher-level index is used to access multiple lower-level indices.” Finisar disagrees, and
 3 advances the following construction for the term: “a set of indices placed in some order based
 4 upon logical relationships between or among the indices, wherein the indices include pieces of
 5 digital information, (each of which contains an identification value plus, in many cases, other
 6 information) used to refer to specific items of information within the database.”²

7 The word “hierarchy” is defined as “a body of persons or things ranked in grades,
 8 orders, or classes, one above another; a system or series of terms of successive rank.” *Oxford*
 9 *English Dictionary* (2d ed. 2001). The plain meaning of the term shows that the indices are
 10 ranked or placed in some order. The use of the word “hierarchy” indicates something more than
 11 a “logical relationship” as Finisar proposes. A hierarchy is a logical relationship, but here a
 12 hierarchy implies a series of menus with submenus and sub-submenus. References in the
 13 specification to a tree and leaf-like structure of the indices also support this construction (col.
 14 12:37–49, Fig. 8). Indices are placed in successive, subdivided levels (col. 13:38–62, Fig. 9).

15 To be hierarchical, the index must also include more than one level. Some branches
 16 may have only one entry without further subdivisions, but the entire index cannot be a single
 17 item. That would not be a hierarchy. It would not even be an index; it would only be a title.

18 The parties also disagree as to the indices’ function. Again, Comcast would require that
 19 the indices make the information database “searchable,” while Finisar contends that the indices
 20 need only “reference” the information. The intrinsic evidence supports Finisar’s view.

21 Claim 16 recites “distinct indices for referencing distinct portions [of the information
 22 database].” Furthermore, this order has already determined above that there is no explicit
 23 requirement that the information database be searchable in the same way as a database such as
 24 Westlaw or LexisNexis. The set of indices is essential to navigating the overall database.

25
 26 ² The Texas Court separately construed the terms “set of indices for referencing data in said
 27 information database” and “hierarchically arranged.” “Hierarchically arranged” was held to mean “the indices
 28 are placed in some order based upon logical relationships between or among the indices.” The term “set of
 indices for referencing data in said information database” was construed as “the pieces of digital information,
 (each of which contains an identification value plus, in many cases, other information) used to refer to specific
 items of information within the database” (Melgar Decl. Exh. B at 7–8).

1 Thus, the indices must allow the system to locate information within the overall database and
2 find the location for information.

3 Comcast also argues that the prosecution history of the '505 patent shows that the
4 inventor went to great lengths to distinguish indices used for cross-referencing data from the
5 hierarchically arranged indices of claim 16. Claim 13 was drawn to the "smart-look ahead"
6 feature used for anticipating subscriber requests. In a response to an office action, the patentee
7 amended claim 13 to further define that feature. The patentee argued (Krishnan Decl. Exh. G
8 at 26):

9 The transmitted data contains embedded cross-referencing
10 indices, which are similar to hyper-links between different sets of
11 data. The filtering means automatically adds to its set of filter
12 data the cross-referencing indices (or corresponding filter values)
13 so that information cross-referenced by data that the subscriber
14 has requested is automatically downloaded into the subscriber's
15 computer, thereby anticipating likely future information requests
16 by the subscriber. *Thus, claim 13 is not directed to a hierarchy of*
17 *indices, but rather is directed to a request anticipation scheme as*
18 *part of an information distribution system.*

19 The examiner later held the amendment to be sufficient to overcome a reference teaching a
20 hierarchical set of indices. It is true, as Comcast contends, that the patentee explicitly
21 distinguished between cross-referencing indices and the hierarchical set of indices during
22 prosecution. These are two separate kinds of indices. Still, this does not show that the
23 hierarchical indices render the information database searchable in the keyword sense.

24 The hierarchically arranged indices allow access to the successively lower levels of
25 information, while the cross-referencing indices can access information in distant branches of
26 the hierarchy. This distinction is based on how the indices reference information, not whether
27 the database is searchable.

28 A "hierarchically arranged set of indices for referencing data in said information
database" is held to mean "a set of ranked indices used to reference data within the database,
with the higher-level indices giving access to the lower-level indices." An index within the
hierarchy may contain a single item.

C. “A Prioritized Set of Tiers.”

The third term to be construed appeared in claims 1 and 16. Claim 16 recited as follows (col. 21:34–59):

16. An information transmission system comprising the steps of:

* * *

scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;

transmitting a stream of data packets containing said selected portions of said information database in accordance with said scheduled transmission times;

said scheduling step including dividing said selected portions of said information database into a *prioritized set of tiers*, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate, wherein the repetition rate for higher priority tiers is higher than the repetition rate for lower priority tiers;

* * *

Finisar argues that this term means “things ranked or preferentially designated based on priority, for example, a selected portion of the information database designated to be transmitted at a higher repetition rate than another selected portion.”³ Comcast proposes that it should mean “levels that are ranked in order of importance.” Comcast goes on to add that “the top-level indices that a subscriber needs to access the database are not part of any tier.”

Both the words “priority” and “tier” are commonly understood words in the English language. A “priority” connotes a higher rank. A “tier” is a level. Each tier can include one or more portions of the database.

It is worthwhile to distinguish the “prioritized set of tiers” from the “hierarchically arranged set of indices,” *i.e.*, a system of indices and a system of tiers. The system of indices is

³ On this point, the Texas Court construed the term “dividing said selected portions of said information database into a *prioritized set of tiers*, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate.” The whole term was held to mean “placing each part of the information database into a prioritized set of tiers, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate” (Melgar Decl. Exh. B at 12). It appears that the Texas Court equated “tiers” to “groups of information.”

1 used to organize the database. The indices are embedded within the database. The system of
2 tiers contains selected portions of the database, with each tier having a set, specific repetition
3 rate for transmission.

4 The parties disagree over whether the tiers are ranked by “importance” or whether a
5 priority can connote some other kind of ranking. This question is addressed in the specification:
6 “[e]ach successively lower tier of information contains a larger amount of information than the
7 next higher tier, *prioritized in accordance with the actual or expected subscriber usage*, and is
8 transmitted less often” (col. 14:9–12). Comcast argues that although the tiers are ranked by
9 repetition rate, “priority” must mean something more than that. Comcast is correct. The claims
10 specifically state that apart from priority, the higher priority tiers have a higher repetition rate
11 while the lower priority tiers have a lower repetition rate. Repetition is already inherent in the
12 claim.

13 Comcast’s further proposal that the tiers must be ranked by “importance,” however,
14 gives little help in defining the term. Comcast concedes that priorities other than importance
15 can be used when it discusses ordering the tiers by how much a subscriber would pay.
16 The specification contemplates ranking the tiers based on expected or actual usage, not based
17 on a philosophical assessment of importance. Expected or actual usage would embrace a range
18 of possible allocations and need not invariably lead automatically to a single result for a given
19 set of circumstances. As long as expected or actual subscription usage is a basis for the
20 allocation, then the priority element will be satisfied.

21 Finally, Comcast urges that the “root information” used to define the indices within the
22 database must be separate from the tiers, *i.e.*, the root information would be sent, according to
23 Comcast, separately from the tiers. The specification made clear that the root information had
24 its own repetition rate. That repetition rate is higher than for all other information, but the “root
25 information,” even though it may not be called out specifically as a “level,” is still part of the
26 set of prioritized tiers (col. 14:2–15, Table 1). The root information is the top tier of the set. It
27 is sent the most frequently and contains the smallest amount of information, the top-level
28 indices used to access the rest of the database.

Accordingly, “a prioritized set of tiers” means a set of levels ranked by expected or actual customer usage possibly together with other allocation factors, wherein each successively lower level of information contains a larger amount of information than the next higher level. The root information described in the specification is part of the top tier.

D. “Wherein All the Selected Portions of Said Information Database in Each Tier Are Transmitted at a Corresponding Repetition Rate.”

This term is closely tied to the “prioritized system of tiers” construed above. Claim 16 recited “said scheduling step including dividing said selected portions of said information database into a prioritized set of tiers, *wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate*, wherein the repetition rate for higher priority tiers is higher than the repetition rate for lower tier” (21:51–59). For this term, Comcast urges that the “selected portions” refer to “the part of the database that is scheduled for transmission, which is less than all of the database.” It further proposes to limit the term to indicate that “[a]ll of the information in each tier is transmitted at a single repetition rate.” Finisar proposes that the term should be defined as “transmitting the selected portions in each tier at a chosen repetition rate.”⁴

Claim 16 itself demands that each individual tier be transmitted at a single repetition rate because “all the selected portions of said information database in each tier” have the same repetition rate. This does not mean that the repetition rate for a tier itself cannot be changed to meet the publisher’s or provider’s needs. For instance, the specification taught that the “particular repetition rates associated with each tier of data and the amount of data allocated to each tier are selectable parameters that will be carefully considered in order to maximize utility of the system to the most subscribers” (col. 14:34–41). For example, during the middle of March of any given year, the provider anticipates a sharp uptick in interest in information about college basketball. The provider places those portions of the database in a higher tier with a

⁴ As noted above, the Texas Court construed this term together with “a prioritized set of tiers.” It held that “dividing said selected portions of said information database into a prioritized set of tiers, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate” to mean “placing each part of the information database selected for transmission into one or more groups of information, and transmitting each group at a chosen repetition rate” (Melgar Decl. Exh. B at 12).

1 more frequent repetition rate. By mid-April, there is less demand for that information, and thus
2 the provider reduces the repetition rate.

3 Comcast also proposes that the entire database cannot be placed in a single tier.
4 The term itself indicates that “selected portions” of the database are sent at a given repetition
5 rate within a tier. The specification taught that “while a user has access to perhaps a terabyte,
6 or even 100 terabytes or more, of data, the total amount of data that systems in accordance with
7 the present invention system can transmit in any one day is much more limited . . .”
8 (col. 2:9–13). The aim of the invention was to give subscribers access to a very large amount of
9 information using a relatively modest amount of bandwidth. This was to be done by sending
10 only the data that a subscriber wanted from a virtually omniscient database. Finisar argues that
11 “selected portions” could mean that all portions of the database are selected for a single tier, but
12 it finds no support for this view in the patent. Were the invention able to send all the
13 information in a single tier, there would be no need for the system of indices for accessing parts
14 of the database, or the system of tiers for sending the information at different repetition rates.

15 Accordingly, the term “wherein all the selected portions of said information database in
16 each tier are transmitted at a corresponding repetition rate” is construed as transmitting the
17 selected portions of the database within a tier at a single, chosen repetition rate, wherein the
18 selected portions per tier are less than the entire database.

19 **E. “Downloading Into A Memory Storage Device.”**

20 Finisar contends that this term should mean “transferring data into a memory storage
21 device.”⁵ In contrast, Comcast argues that the term should mean “transferring the data packets
22 into a device whose purpose is to save them indefinitely until the subscriber retrieves them.”
23 “Storage” is a commonly understood word even in the context of computers. Information
24 comes to rest at a certain place for some amount of time so that it can be accessed later.

25
26
27 ⁵ The Texas Court first addressed this term in claim construction, where it held that “downloading into
28 a memory storage device” meant “the data filter transfers into a memory storage device the data packets
specified in the filter data.” Later, on a motion for clarification of the construction of the phrase, the Court held
the term as used in claim 16, asserted herein, to mean “transferring into a memory storage device the data
packets specified in the filter data” (Melgar Decl. Exh. D at 4).

1 “Downloading” is similarly understood as a transfer of data from one system or location to
2 another.

3 This term appears as a limitation in several of the independent claims, including claim
4 16. In part, it recited (col. 21:34–68):

5 16. An information transmission system comprising the steps of:

6 * * *

7 receiving said transmitted stream of data packets at subscriber
8 stations;

9 at each subscriber stations, storing filter data corresponding to a
10 subset of said indices, said filter data specifying a set of
requested data packets which comprises a subset of said
transmitted data packets; and

11 at each subscriber station, *downloading into a memory storage*
12 *device* those of said received data packets which match
said specified set of requested data packets.

13 Finisar contends that any construction of this term should be broad enough to encompass
14 temporary storage in a buffer. Comcast would require the data packets to be stored so as to be
15 retrievable later.

16 Claim 26, which depended from claim 16, helps to illuminate what was meant by this
17 term. It recited (col. 23:15–27):

18 26. The information transmission of claim 16, said receiving and
19 downloading steps including:

20 at each subscriber stations, *temporarily storing received data*
21 *packets in a buffer*, storing a filter list comprising said
22 filter data referencing said specified set of requested data
packets, *comparing said data packets temporarily stored*
in said buffer with said filter data and then forwarding
those data packets in said buffer which match said filter
data to a predefined destination;

23 whereby each subscriber station receives all transmitted data
24 packets but forwards only requested data packets to said
predefined destination.

25 Claim 26 added the limitation of storing the data packets temporarily in a buffer before
26 forwarding them to a predefined destination. While temporarily stored in the buffer, the
27 incoming data packets are matched up to a filter list that specifies the requested data packets
28 and sends them on to a predefined destination. Claim 26 depended from Claim 16. Therefore,

1 all of the limitations of claim 16 were part of claim 26, and the claim 26 limitations simply
2 narrowed further the scope of the claim 26 invention. The further limitations in claim 26
3 narrowed the “receiving” and “downloading” steps. The first claim 26 limitation narrowed the
4 “receiving” step of claim 16 to call out expressly the temporary storage of the received data
5 packets in a buffer and comparing the packets stored in the buffer against the filter list and then
6 forwarding the packets that match to “a predefined location.” The “downloading” step was
7 narrowed to transmission of requested data packets to the predefined destination.

8 This order holds that the term “predefined destination” must be a “memory storage
9 device.” This follows as a matter of law due to the dependence of claim 26 from claim 16.
10 Significantly, the use of the buffer in claim 26 was *not* as a memory storage device. Rather, it
11 was a refinement on the filtering step.

12 Claim 16 called out two distinct steps (at the subscriber station). One was the filtering
13 step. The other was the downloading step — very specifically “downloading into a memory
14 storage device.” The specification consistently separated the two steps. It consistently referred
15 to the second step as storage in “the memory of the subscriber’s workstation,” or another
16 “computer,” “host computer,” or “tape recorder” (col 5:30–35; col 8:31–46; col. 11:34–57; col.
17 16:53–64). Anyone skilled in the art would understand that the filtering step utilizes the buffer
18 and the downloading step utilizes a different and separate memory storage device capable of
19 retaining the received data packets until they are desired for further use by the subscriber’s
20 system.

21 Finisar argues that a “memory storage device” should not be limited to any particular
22 device. In support, it points out that the specification taught that the data could be downloaded
23 to RAM, or random-access memory, on a subscriber’s computer (col. 5:31–35, Fig 2). RAM is
24 volatile memory that can be overwritten, however, RAM can still be accessed again after the
25 information has been downloaded. Storage need not be permanent, but being able to view
26 content at a time after it has been downloaded is a key feature of this invention (col. 1:53–66;
27 6:15–26; 17:1–10).

Comcast argues that a “view-it-or-lose-it” system, such as streaming data or video, is not a storage device. The problem is that the Court does not yet know how the accused system works. Possibly the streaming utilizes some form of downloading to a memory storage device, even if the information is retained only briefly. The Court is unwilling on this record to speculate. All that can be said with assurance at this point is that the buffer used in the filter step will not do double duty as the storage memory device for the downloading step. Whether or not some other buffer can serve as the memory storage device remains to be seen.

This order takes pains to point out that the limitation requires that the “received data packets” be downloaded. The patentee made clear what he meant by a “data packet” as described in Figure 6 of the patent. It includes the data itself, as well as a packet ID, function code, timestamp, and an error detection code. This raises the possibility that a system similar to the claimed system could download only *part* of the received data packets. Some portions in the packet described by Figure 6 could be omitted, or possibly replaced with other information or error correction codes. This would presumably avoid literal infringement of claim 16.

Accordingly, this claim construction order holds that “downloading into a memory storage device” means transferring the desired data into a device capable of saving it for later access.

F. “Requested.”

For the sixth and final term, Comcast argues that it should indicate that “requested data packets are the data packets that a subscriber has asked to be transmitted.” Finisar contends that the term “requested” should mean “something asked for or sought” irrespective of what or who does the asking or seeking.⁶ The plain meaning of the term “requested” is simple enough. It means “asked for” or “sought.” Within the context of the patent, however, the parties part company as to who or what makes the request.

⁶ The Texas Court construed the term “requested data packets” and not “requested” as addressed here. The term “requested data packets” was held to mean “data packets that are requested by subscribers or subscriber stations” (Melgar Decl. Exh. C at 2).

1 The final two paragraphs of Claim 16 are instructive here. They recited (col. 21:60–68):

2 at each subscriber stations, storing filter data corresponding to a
3 subset of said indices, said filter data *specifying a set of*
4 *requested data packets which comprises a subset of said*
5 *transmitted data packets;*

6 at each subscriber station, downloading into a memory storage
7 device *those of said received data packets which match*
8 *said specified set of requested data packets.*

9 From the claim, the filter specifies which packets are requested. The incoming data packets are
10 matched up with the filter data, and the matching packets are downloaded to a storage device.

11 The use of the term in claim 22 provides further clarification. It recited (col. 22:37–47):

12 22. The information transmission method of claim 16, wherein
13 said scheduling step includes reserving a portion of transmission
14 bandwidth available for said transmitting step for transmitting
15 portions of said information database *requested by subscribers;*

16 said method including receiving requests from subscribers, said
17 requests each specifying a portion of said information
18 database; and

19 said scheduling step including scheduling transmission of
20 requested portions of said information database.

21 Claim 22 was drawn to processing requests for information not included in the tiered system,
22 and thus not automatically scheduled for transmission. A portion of the bandwidth for the
23 system can be reserved for such requests. Such requests are scheduled for delivery independent
24 of the tiered system because they ask for data that is not assigned to any tier.

25 Claim 23 is instructive as well as it was drawn to information requests by subscriber
26 stations. It recited (col. 22:48–65):

27 23. The information transmission method of claim 16, wherein
28 one or more subsets of said subscriber stations are interconnected
via a local area network including a network server;

said method including receiving at said network server said
transmitted stream of data packets on behalf of an
associated set of subscriber stations, storing data in said
network server referencing a *specified set of data packets*
requested by said associated set of subscriber stations,
and downloading into a memory storage device associated
with said network server those of said received data
packets which match said specified set of requested data
packets;

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

In this claim, a set of networked or linked subscriber stations, not the subscribers themselves, makes requests for data packets on behalf of the whole network. The data packets are then downloaded to community storage space. This indicates that in a broad, independent claim such as claim 16, the term “requested” should not be confined to packets explicitly requested by the subscriber.

The specification supports this view as well. A feature of the invention is its ability to generate “look-ahead requests” that anticipate information that the subscriber will want to view before they actually ask for it (col. 16:16–30). The subscriber station requests additional data packets related to that which the subscriber requested. The data packets are then downloaded into storage for quick access by the subscriber. Another feature is the ability to update the system’s software without action by the subscriber (col. 8:47–56). Neither of these features would be possible if no entity other than the subscriber were ever able to make requests.


This order construes the sixth and final term “requested” as programmed for retention in the subscriber’s filter.

CONCLUSION

This claim construction ruling will govern for the remainder of this action.

IT IS SO ORDERED.

Dated: April 6, 2007.


 WILLIAM ALSUP
 UNITED STATES DISTRICT JUDGE